

Study Skills

Instructor's Guide



Study Skills Curriculum Outline

I. Forming Good Study Habits

Day 1: Following Directions
Day 2: Time Management
Day 3: Dictionary Skills
Day 4: Analyzing Word Structure
Day 5: Vocabulary Development

II. Building Good Study Skills

Day 6: Learning Styles
Day 7: The SQ3R Method
Day 8: Classroom Note taking
Day 9: Textbook Previewing, Marking and Note taking
Day 10: Retaining Information

III. Reading for Comprehension

Day 11: Headings & Subheadings
Day 12: Recognizing the Main Idea
Day 13: Discussion of Recognizing the Main Idea
Day 14: Major & Minor Details
Day 15: Discussion of Major & Minor Details

IV. Tips for Taking Tests

Day 16: Basic Test Taking Strategies
Day 17: True/False Questions
Day 18: Multiple Choice Questions
Day 19: Fill-In the Blank Questions
Day 20: Essay Questions

V. Understanding Charts, Graphs, and Tables

Day 21/22: Charts, Graphs, and Tables
Day 23: Review for Final Exam
Day 24: Final Exam/Course Evaluation

Basic Classroom Supplies Needed for Study Skills

Overhead Projector
Transparency pens
Chalk board or flip chart
Chalk or Markers
Instructor's Guide
Dictionary
Hazmat Vocabulary Words/Glossary

* Refer to Instructor's Guide for specific materials/supplies needed for each lesson.

Day 1

Activity

Overview of Training Program. Administer the Practice Exercise.

Objective

Discuss this exercise in terms of how it felt to follow so many directions. Process the feelings and reflections of those who succeeded and those who failed to follow all directions.

Materials and Supplies

- Practice Exercise

Homework

Pick two areas you feel are strengths and two areas you feel are weaknesses. Describe both your strengths and weaknesses. Be prepared to discuss in class.

PRACTICE EXERCISE

Read the following directions to the class. Use a normal reading rate. After the exercise discuss how the students felt. Was it difficult or easy to listen to the directions? What happened when the direction called for you to "think" of something?

Direction 1: Do not say a word at any point during this exercise. Do not raise your hand or look at your neighbor. There will be thirteen directions in the exercise. Follow every one of them except for the last direction, which you should disregard.

Direction 2: Get out a sheet of paper and write your full name in the upper left-hand corner of the paper.

Direction 3: Write the numbers 1 to 8 down the left-hand side of the page.

Direction 4: Write beside space 2 the word *quiet*, which is spelled *q-u-i-e-t*.

Direction 5: Write down the name of the street where you live beside space 3. Do not write down the street number.

Direction 6: Think of the name of the high school that you went to. Do not write it down beside space 1.

Direction 7: Think of the name of the toothpaste that you use. Write it down on the back of your sheet of paper.

Direction 8: Listen to the following set of numbers and then put them down beside space 4. The numbers are 8, 12, 20, 31, 45.

Direction 9: Think of the name of a television show that you like, turn your paper upside down, and write the name of the show beside space 5.

Direction 10: Turn your paper back to the original position. Then count the number of people in the room, including yourself. Write out the number beside space 6.

Direction 11: Print in capital letters your first name or nickname beside space 7.

Direction 12: Write the word banana-spelled b-a-n-a-n-a- beside space 8. Then draw a picture of a pear on one side of the word banana and a picture of an apple under the word banana.

Direction 13: This is the last direction: Crumple your paper into a ball and throw it to the front of the room.

Study Skills

Day 2

Activity

Introduce Time Management concept.

Objective

To understand how managing time is an important part of developing good study habits. Trainees will learn how to manage time through the use of a Time Management Planning Schedule.

Materials and Supplies

- Transparency or Handouts of Time Management Strategy
- WTP Weekly Schedule

Key Terms

- Time Log
- Fixed commitments
- Peak time
- Schedule
- Procrastination

Homework

Using the Time Management schedule, plan your study time for the WTP. Include such things as fixed commitments and planned breaks.

* Time Management * Planning Schedule *

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
6 AM.							
7							
8							
9							
10							
11							
12 NOON							
1 P.M.							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12 MID.							
1 A.M.							

Study Skills Day 3

Activity

Review Time Management Homework. Administer a Vocabulary Quiz (Instructor generated).. Discuss the importance of having good dictionary skills.

Objective

To provide trainees with the skills necessary to effectively use a dictionary.
Trainees will use a dictionary to:

- ⇒ find the correct spelling of words
- ⇒ locate word origins & parts of speech
- ⇒ obtain word meanings

Materials and Supplies:

- Copies
- Dictionaries
- Vocabulary Quiz
- Environmental Justice Vocabulary Words

Key Terms:

- Main Entries
- Guide Words
- Phonetic Spelling
- Word Origins

Homework:

Assign the following 10 words from Environmental Justice for trainees to look up in the dictionary using practice format from class.

Study Skills Day 3

Vocabulary

1. Community
2. Environmental
3. Empowerment
4. Geographic
5. Justice
6. Pollution
7. Racism
8. Risk
9. Vulnerable
10. Disproportionate

Study Skills Day 4

Activity

Analyzing word parts. Group practice with identifying word parts.

Objective

After completion of this lesson, the trainees will have a better understanding of how to determine word meanings by analyzing their parts. Trainees will be able to:

- ⇒ Identify common roots
- ⇒ Identify common prefixes
- ⇒ Identify common suffixes

Materials and Supplies

- Practice Exercises
- Transparencies or handouts of prefix worksheets
- Transparencies or handouts of suffix worksheets

Key Terms

- Root word
- Prefix
- Suffix
- Adjective
- Noun
- Verb
- Adverb

Homework

Complete Roots Worksheet

NOTE: This lesson may be expanded to cover several days.

Instructor Notes

The instructor should cover the material directly from the Guide, frequently allowing the trainees to participate by having them read aloud from the Guide. To enable the trainees to implement the lesson, the instructor should have them review and analyze previously covered words from their vocabulary list. Have the trainees examine the prefixes and suffixes. Using words they are familiar with will enable them to see the pattern. After this exercise is complete, the instructor should assign spelling words and have the trainees utilize this technique of analyzing word structure and writing definitions in pencil. The trainees may then check their ability to analyze word structure by locating words in the dictionary and comparing their analysis to dictionary definitions.

Analyze Word Structure

When a context does not state or imply a word meaning, you can sometimes determine the meaning by studying the root and prefix or suffix in the word. This section explains how to determine word meanings by analyzing their parts so you will have less need to use a dictionary when you read.

ROOTS*

The root is the stem or basic part of the word. Knowing the definition of the root helps unlock the meaning of each word. The roots that we use are derived primarily from Greek and Latin. For example, the root port is derived from Latin and means to carry, as in the word porter. Thermo is a Greek word meaning heat, as in thermometer. In both cases, additional letters have been added to the word, but the meaning of the word has not changed. Sometimes the spelling of the root may vary slightly (see number 6 below).

Listed below are common roots, their meanings, and one example. In the space to the left, write at least one additional example.

<u>ROOT</u>	<u>MEANING</u>	<u>EXAMPLE</u>	=
<u>YOUR EXAMPLE(S)</u>			
1. aqua	water	aqualung	_____
2. audio	hear	audience	_____
3. auto	self	autonomy	_____

4.	bene	well	beneficiary_____
5.	biblio	book	bibliophile_____
6.	bio	life	biopsy_____
7.	cor, cord	heart	cardiac_____
8.	corp	body	incorporate_____
9.	cred	belief	incredible_____
10.	ego	self	egocentric_____
11.	fact	make	manufacture_____
12.	frater	brother	fraternize_____
13.	geo	earth	geocentric_____
14.	graph	write	ethnography_____
15.	bc	place	locale_____
16.	log	speech or science	dialogue, logic_____
17.	micro	small	micrometer_____
18.	mit, mis	send	transmit_____
19.	mort	death	immortal_____
20.	omni	all	omnivorous_____
21.	pater	father	patriarchy_____
22.	ped	foot	podiatrist_____
23.	philo	love	bibliophile_____
24.	phob	fear	agrophobia_____
25.	phon	sound	symphony_____
26.	poly	many	polyglot_____
27.	pos	place	imposition_____
28.	pot	strength or ability	impotent, potential_____
29.	pseud	false	pseudonym_____
30.	psych	soul or mind	psychic, psychology_____
31.	script	write	postscript_____
32.	sol	alone	solitude_____
33.	soph	wise	philosopher_____
34.	tele	far	telepathy_____

35. vert turn convertible _____
36. vid, vis see invisible _____

For the following exercise, first look at the word part and its definition; think of examples of how that word part is used in words you know. Then, use the word part to supply an appropriate word for each of the sentences that follow.

duc. duct. duce: lead

37. If the factory is ready, the new line of stereos will go into _____ next week.
38. The company is trying to cut down overhead in order to _____ expenses.
39. Legitimate business expenses can be _____ from your taxes if you keep receipts.

cede - cede. cess: go, yield, move

40. To _____ in a difficult job requires knowledge, perseverance, and hard work.
41. As he got older, his hairline began to _____.
42. Before _____ to the next step, make sure you have the proper tools.

port: carry

43. If we could _____ fewer goods into this country, our economy would improve.
44. He wanted a _____ radio so he could listen to the game while riding to work.
45. Private contributions and volunteers _____
_____ the efforts of the NAACP.

cred: believe

46. We could not believe what we saw; the feat was _____.
47. If a school is not fully _____ by the state, its courses will

not transfer.

48. Her political opponent spread rumors about her in an effort to _____ her reputation.

voc. vok: voice, call

49. Despite her intention to not argue, his remarks seemed calculated to _____ her anger.

50. The opera star did not appear in the third act because of damage to his _____ cords.

51. In order to increase her _____, the student learned a new word every day.

gress. grad. gred: step, degree

52. If he can take one additional night course this year, he hopes to _____ by June.

53. The company was looking for _____ employees, not meek applicants for the job.

54. The progress was so _____ that we hardly noticed any improvement at first.

spec. spect: see, watch

55. The grand finale of the fireworks display *was* quite _____.

56. With the growing audiences, tennis has become a profitable _____ sport.

57. When buying cuts of meat, always look for the government _____ sticker.

vis - vid: see

58. When she plays tennis, she wears a _____ to keep the sun out of her eyes.

59. From the description you have given me, I cannot _____ the actor's face.

60. The rip was so well mended that the hole is now _____.

ten, tent: hold, hold together

61. The _____ crew cleans the floors at night when no one is in the building.
62. She has been _____ in her marriage for a long time and is thinking of a divorce.
63. He's been on excellent _____; he's neat, clean, and always pays his rent on time.

dud, clus: shut

64. She gradually became a _____, shutting herself in the house and not receiving visitors.
65. To _____ the interview, the manager stood up and shook his hand.
66. Now that ten-digit dialing is here, even local calls must _____ the area code.

Prefixes*

**(Adapted from various unknown sources)*

*A prefix is a group of letters with a special meaning that is added to the beginning of a word. For example, **ex** means out of and **im** means into. Adding these two prefixes to port gives two words that are opposite in meaning. Export means to send something out of the country, whereas import means to bring something in. Again, knowing the prefixes can help you identify the meaning.*

Listed below are common prefixes, their meanings, and one example. In the space to the left, write at least one additional example.

	<u>PREFIX</u>	<u>MEANING</u>	<u>EXAMPLE</u>
YOUR EXAMPLE(S)			
1.	ab-	away or from	abhor _____
2.	ad-	to or toward	adhere _____
3.	ante-	before	anteroom _____
4.	anti-	against	antisocial _____
5.	bi-	two or twice	bisect _____
6.	circum-	around	circumvent _____

7.	corn-, con-	together or with	combine/connect _____
8.	contra-	against	contrary _____
9.	de-	down from	degrade _____
10.	dia-	through or around	diameter _____
11.	dis-	apart	disconnect _____
12.	ex -	out of	export _____
13.	ii-	not	illegal _____
14.	in-	not	invisible _____
15.	in-	in or into	invade,insert _____
16.	inter-	between or among	interrupt _____
17.	ir-	not	irresistible _____
18.	mono-	one	monopoly _____
19.	non-	not	nonprofit _____
20.	ob-	against	obstinate _____
21.	pan-	all	pantheist _____
22.	per-	through	peruse _____
23.	per-	around	perimeter _____
24.	poly-	many	polydactyl _____
25.	post-	after	postpone _____
26.	pre-	before	preamble _____
27.	pro-	for or forward	progress _____
28.	re-	back or again	regress _____
29.	retro-	backward	retrofit _____
30.	se-	aside	segregate _____
31.	semi-	half	semiannual _____
32.	sub-	under	submarine _____
33.	super-	over or above	superior _____
34.	trans-	across	transport _____
35.	tn-	three	triplet _____

36. un- not unless _____

For the following exercise, first look at the prefix and its definition; think of examples of how that prefix is used in words you know. Then, use the prefix to supply an appropriate word for each of the sentences that follow.

trans: across, over, beyond

37. The station has a new radio _____ that beams the programs to a wider audience.
38. Since she did not speak French, she needed a _____ to conduct business in Paris.
39. When the business _____ was completed, the two executives shook hands.

re: back, again

40. If you want to back up, put the car in _____.
41. Most term papers need to be _____ before the final draft is submitted.
42. When you take out a mortgage, you may have as many as thirty years to _____ the loan.

mis. miss: carry

43. Because the child _____ at the movie, he was not allowed to go again.
44. The answer was not a lie, but it did _____ the truth.
45. Because of an error by the lawyer, the judge declared a _____ and adjourned the court.

pre: before

46. Even a fortune teller could not have _____ the fun we had scuba diving.

47. Police recommend alarm systems as a type of crime

_____.

48. The student was so _____ with her assignment that she did not hear the phone.

dis: not, take away, deprive of

49. Since she refused to finish school, her family threatened to _____ her in the will.

50. The soldier's cowardice brought _____ on the whole regiment.

51. Since the severe injury to his spinal cord, he is completely _____ and cannot work.

con, con. co: with, together

52. The minister looked out at the _____ and asked them to stand and sing a hymn.

53. Our plane arrived late in Miami, making us miss our scheduled _____ to L.A.

54. If you _____ your efforts and lend a hand, we can be finished in half the time.

inter: between, among

55. After the first act of the play, the audience went to the lobby for a brief _____.

56. The football player _____ the pass and ran the length of the field for a touchdown.

57. However, the referee called pass _____ and the play was called back.

ex: out of, from

58. The student was _____ from school, because he was caught selling drugs in the dorm.

59. Everyone had to take the final exam; there were no _____ to the rule.

60. Sometimes when I get excited, I have a difficult time _____ what I really mean.

pro: for, before, forward

61. Before we _____ with the project, we need to agree to the budget.

62. He was hoping to be _____ to vice-president, but the boss's son-in-law got the job.

63. The drama club's current play is an outstanding _____ of *Soul Food*.

ad: to, toward

64. If the Scotch tape is not longer _____, it will not stick to the package.

65. To gain public recognition for the new product, the company had to _____ on T.V.

66. Some people say that they are _____ to potato chips because they cannot stop eating them.

Suffixes*

**(adapted from various unknown sources)*

*A suffix is a group of letters with a special meaning that are added to the end of a word. A suffix can alter the meaning of a word as well as the way the word can be used in the sentence. For example, by adding **er** to the root port (which means move), we have the word porter, meaning the person who moves. The **er** also changes the verb port into a noun—the name of a person. On the other hand, by adding **able**, which means capable of to the root port, we have the word portable, an adjective meaning capable of being moved. A suffix may not change the meaning of a root word as much as it changes the way the word can be used in a sentence. Some suffixes, therefore, have more meaning than others, but all alter the way the word can be used in a sentence.*

Listed below are common suffixes, their meanings, and one example. In the space to the left, write

at least one additional example.

	<u>SUFFIX</u>	<u>MEANING</u>	<u>EXAMPLE</u>
<u>YOUR EXAMPLE(S)</u>			
1.	- able	capable of being	portable_____
2.	-age	act of condition	postage_____
3.	-al	like or suitable for	theatrical_____
4.	-an	person who	American_____
5.	-ance	state of being	resemblance_____
6.	-ant (noun)	person who	occupant_____
7.	-ant (adjective)	state of being	defiant_____
8.	-ar	relating to	lunar_____
9.	-ary	place where	aviary_____
10.	-ate	to make	postulate_____
11.	-ee	person who is	nominee_____
12.	-en	made of	wooden_____
13.	-ence	state or quality	malevolence_____
14.	-ent	person who	malevolent_____
15.	-fic	causing or producing	scientific_____
16.	-fy	to make	glorify _____
17.	- hood	state or condition	neighborhood _____
18.	-ible	capable of being	legible _____
19.	-ic	of or characteristic of	angelic _____
20.	- ice	condition or quality	malice _____
21.	- ld	state or condition	fluid _____
22.	-lle	relating to	infantile _____
23.	-ion	state of being	confusion, action_____
24.	- 1st	person who	chemist_____
25.	-ive	relating to	attentive, massive_____
26.	-ize	to make	sterilize _____
27.	- less	without	motionless _____

28. -ment	state of being	fulfillment_____
29. -or	person who	inventor_____
30. -ory	place for	conservatory_____
31. -ous	abounding in	malicious_____
32. -some	tending to	lonesome_____
33. -tude	condition	fortitude_____
34. -ty	state or condition	liberty_____
35. -ward	direction or course	forward_____

*For the following exercise, first look at the suffix and its definition; think of examples of how that suffix is used in words you know. 'Then, use the suffix to supply an appropriate word **for each of the sentences that follow.***

ion. sion. tion: **act of, state of, result of**

36. To honor his birthday, we invited his friends to a party and had a big _____.
37. If you don't clean out the wound and use a bandage, you will probably get an _____.
38. The movie company has not decided on the exact _____ for the next James Bond film.

ist: **one who, that which**

39. If you have a toothache, go to your _____ immediately.
40. The _____ played the piano with such passion and skill, that we gave her a standing ovation.
41. The portrait was painted by a well-known African-American _____.

ful: **full of**

42. Since we knew some people could not attend, we were still _____ of getting tickets.
43. The surgeon was very _____.

- _____ not to sever a
nerve during the delicate operation.
44. Since the future is so uncertain, it is
_____ that we will
be hiring anyone anytime soon.

less: *without*

45. Because the show was boring, I became _____ and could
not sit still.
46. A new baby lamb is _____
against fierce and determined predators.
47. He suffered from insomnia and spent many _____
nights in Seattle.

able, ible: *cab do, able*

48. To get elected, a political candidate must mix with the public and make
herself highly _____.
49. I need a _____ car that I can count on to start each
morning.
50. Although some mushrooms can be eaten, most are not
_____.

ment: *act of, state of, result of action*

51. Another _____ to the constitution was proposed by
the legislature.
52. A growing child needs to eat the right foods so that her or his body gets
the proper _____.
53. My _____ with the manager was postponed until
tomorrow at two o'clock.

ence. ency: *action, state, quality*

54. The therapist showed a great deal of _____ for such a
tiny degree of success.
55. If your dog misbehaves, consider sending her or him to
_____ school.

56. What one person had the greatest _____ over your life as you were growing up?

ous: *full of, having*

57. The disappearance was very _____; deputy Barney Fife couldn't find a single clue.

58. The loud noises were beginning to make the horses _____ as they waited to start the race.

59. After a good laugh the committee got down to the _____ business of cutting the budget.

lty, ty: *state of, quality*

60. When life is fun, we do not want our time to end; we want to live for an _____.

61. However, because of our _____, life-like all good things-must cease.

62. Does he have the _____ to do the fine details in such an intricate work?

ism: *doctrine, condition, characteristic*

63. _____ is just one example of substance abuse afflicting Americans today.

64. Kidnappings, bombing, and a general rise in _____ threaten world stability.

65. Even though they disagree, China and Cuba both follow the political ideology of _____.

Study Skills

Day 5

Activity

Assign HAZMAT Vocabulary Words. Read and discuss the importance of building vocabulary.

Objective

Upon completion of this lesson, the trainees will be familiar with words utilized in the Hazmat Industry. The Trainees will understand the importance of developing vocabulary by:

- systematically learning new words
- using context clues
- regular reading

Materials and Supplies:

Hazmat Vocabulary Words
Practice Exercises

Key Terms:

- Context Clues
- Jargon
- Systematical

Homework:

Practice determining word meaning using context clues. Assign words from the Hazmat list so that Trainees begin to master the definitions.

Study Skills

Vocabulary Development

A good vocabulary is an important component of effective communication. Understanding many words will make you a better speaker, reader, and writer. Knowing many word meanings can help improve your reading speed and reading comprehension. These related approaches can be used to increase your word knowledge.

Regular Reading

In order to learn new words, you must experience them a number of times in a variety of sentences. Regular reading must become a part of your daily routine. You can read sections from the local newspaper that interest you. You can read articles from related trade magazines. Finally, do some reading for pleasure. Plan to redirect at least one half-hour of your recreational time to reading, rather than watching television, listening to music, or talking on the telephone.

Systematically Learning New Words

Some of the most important words you must learn and remember are the technical terms used in HAZMAT. In any introductory course, you must spend a great deal of time learning the specialized vocabulary. Learning the key vocabulary words, phrases, and *jargon* of the industry is critical to understanding the subject. Having a *systematical* approach to learning new words simply means looking up word definitions in the glossary or index of your textbook, committing them to memory, and trying to incorporate them into your vocabulary. The HAZMAT instructor is another source of information about technical terms. Be certain to write down any definitions provided during class discussions.

Using Context Clues

Using a dictionary is one method of finding out the meaning of an unfamiliar word; however, stopping in mid-sentence to pull out a dictionary is not always possible or practical. Another method for determining the meaning of unknown words is by looking for *context* clues. You can often figure out the meaning of a word by how it is used in a sentence.

Study Skills Day 6

Activity

Discuss what a Learning Style is. Administer Learning Styles Inventory.

Objective

After completion of this lesson, trainees will have an understanding of how each learning style processes information. The trainees will be able to:

- ⇒ Identify their own learning style
- ⇒ Identify ways to improve their sensory learning process

Materials and Supplies

- Copies of the Learning Styles Questionnaire
- Score Interpretations

Key Terms

- Auditory
- Tactile
- Verbal
- Visual
- Nuances
- Oral
- Kinesthetic

Homework

Writing Assignment: Describe how you should study in order for you to learn, remember, retrieve, and accurately reproduce information.

- Visual Learners:

learn through seeing... ~



These learners need to see the teacher's body language and facial expression to fully understand the content of a lesson. They tend to prefer sitting at the front of the classroom to avoid visual obstructions (e.g. people's heads). They may think in pictures and learn best from visual displays including: diagrams, illustrated text books, overhead transparencies, videos, flipcharts and hand-outs. During a lecture or classroom discussion, visual learners often prefer to take detailed notes to absorb the information.

Auditory Learners:

learn through listening...



They learn best through verbal lectures, discussions, talking things through and listening to what others have to say. Auditory learners interpret the underlying meanings of speech through listening to tone of voice, pitch, speed and other nuances. Written information may have little meaning until it is heard. These learners often benefit from reading text aloud and using a tape recorder.

Tactile/Kinesthetic Learners:

learn through, moving, doing and touching....



Tactile/Kinesthetic persons learn best through a hands-on approach, actively exploring the physical world around them. They may find it hard to sit still for long periods and may become distracted by their need for activity and exploration.

LEARNING STYLES CHECKLIST

Place a check in the box of any statement that applies to you. Add up the number of checks in each section to determine your best learning style.

<input type="checkbox"/>	I enjoy doodling and even my notes lots of pictures, arrows, etc., in them.
<input type="checkbox"/>	I remember things better if I write them down, even if I don't go back to see what I've written.
<input type="checkbox"/>	When trying to remember a phone number, it helps me to get a picture in my head.
<input type="checkbox"/>	Unless I write down the directions to a place, I'm likely to get lost or arrive late.
<input type="checkbox"/>	It helps me to look at a person when he or she is speaking. It helps keep me focused.
<input type="checkbox"/>	It's hard for me to concentrate on what is being said if there is background noise.
<input type="checkbox"/>	It's difficult for me to understand a joke when I hear it.
<input type="checkbox"/>	It's easier for me to get work done in a quiet place.
<input type="checkbox"/>	VISUAL TOTAL
<input type="checkbox"/>	When reading, I read aloud, "hear the words in my head."
<input type="checkbox"/>	When memorizing something, it helps me to recite it over and over.
<input type="checkbox"/>	If I and to understand something, it helps me to try to explain it to someone else.
<input type="checkbox"/>	During lectures, I don't need to take notes to remember what was said. Sometimes taking notes even makes it harder for me to listen.
<input type="checkbox"/>	I remember what people have said rather than what they were wearing.
<input type="checkbox"/>	I would rather listen to the news on the radio than read it in paper.
<input type="checkbox"/>	I like tape recording memos to myself, or sending and receiving message on an answering machine, rather than using written notes.
<input type="checkbox"/>	I can easily understand what a speaker is saying, even though my eyes are closed or I'm staring out the window.
<input type="checkbox"/>	I talk to myself when problem solving or writing.
<input type="checkbox"/>	I prefer to have someone tell me how to do something rather than have to read directions.
<input type="checkbox"/>	AUDITORY TOTAL
<input type="checkbox"/>	I don't like to read or listen to directions: I'd rather just start doing.
<input type="checkbox"/>	I learn best when I'm shown how to do something and then have the opportunity to do it.
<input type="checkbox"/>	I can study better with music playing in the background.
<input type="checkbox"/>	My desk looks disorganized.
<input type="checkbox"/>	I move my lips when I read.
<input type="checkbox"/>	I take notes but seldom go back and read them.
<input type="checkbox"/>	I can easily find my way around, even in strange surrounding.
<input type="checkbox"/>	I think better when I have the freedom to move around, I get fidgety and feel trapped when sitting behind a desk
<input type="checkbox"/>	When I don't think of a specific word, I'll use my hands a lot and call something "whatchamacallit" or a "thingamajig".
<input type="checkbox"/>	KINESTHETIC/ TACTILE TOTAL

Study Skills

Day 7

Activity

Discuss SQ3R Study Method. Practice applying SQ3R Techniques to a reading passage. Write key components for each step.

Objective

After completion of this lesson, the trainees will have a better understanding of an effective study method that will increase their ability to learn new material. They will be able to:

- ⇒ explain the SQ3R study method
- ⇒ apply SQ3R study techniques to reading passages

Materials and Supplies

- Trainee Guide
- Selected reading passages to practice the technique

Key Terms

- Survey
- Skim
- Recite
- Review

Homework

Read the selected article on Environmental Racism from *E Magazine*, July-August 1998. Carry out the SQ3R activities explained in this lesson. Be prepared to

discuss the content of the article. (*Instructor may provide another article of choice.*)

Study Skills

Day 7

The SQ3R Study Method

An excellent set of suggestions for effective studying called the SQ3R study method was developed by Francis Robinson at Ohio State University. The acronym, SQ3R, stands for a process whose steps are Survey, Question, Read, Recite and Review. Each is described briefly below:

Survey. To survey a chapter, begin by reading the various headings and subheadings. In this way, you learn generally what the chapter is about, and you know what to expect. Skim some of the first sentences and look at any pictures, tables, or graphs. If there is a summary, read it as a part of your survey because it will give you the important parts of the chapter. The survey technique increases your ability to understand and learn new material.

Question. Some textbooks have lists of questions at the beginning or end of each chapter. If a book has them, use them and try to answer them. Try to think about the material and ask yourself questions about it. Asking questions is a way of actively taking part in the learning process. Active participation is a key to learning. Questions are also ways of testing yourself to see what you have learned.

Read. The next step is to read. Read carefully and try to answer the questions that you have asked yourself. Make sure that you read everything—tables, graphs, and captions as well as the main text. Trainees often say, "I forget what I read as soon as I put the book down." So read to remember by telling yourself to remember. Notice particularly any words or phrases that are italicized, because authors use italics to point out important terms, concepts, and principles.

Recite. Recitation is an important part of effective studying. Recite, not just in class periods, but also to yourself, recalling what you have read. Recitation takes a lot of effort, for it is easy just to read and put the book away. Try to recall main headings and main ideas. For example, what does SQ3R stand for? As you read, stop several times and recite to yourself the major points that are being presented in the text. Recitation is important because it helps prevent forgetting by forcing you to keep your attention on the task.

Review. The fifth step in the SQ3R technique is to review. Review is important for remembering. The best times for review are right after first studying and again just before a test. Most good trainees try to get on or two reviews in between. These reviews include rereading and recitation.

Study Skills Day 8

Activity

Discuss the importance of taking notes during class. Practice handwriting and listening efficiency.

Objective

After completion of this lesson, the trainees will have a better understanding of the organizational skills required for effective note taking. Trainees will be able to:

- ⇒ take effective classroom notes
- ⇒ identify several ways to study class notes
- ⇒ recognize factors that may impact effective note taking

Materials and Supplies

- Practice exercise to be selected by the instructor.

Key Terms

- Abbreviations
- Connecting words
- Emphasis words
- Recall words
- Handwriting efficiency
- Listening efficiency

Study Skills

Day 8

How To Study Class Notes

Begin studying class notes within a day after taking them. A few minutes of studying soon after class will help you remember and recall the information more easily.

Use margin space to write down key words and phrases that will help to recall main ideas.

Turn these recall words into questions to ask yourself on the material.

Using this method regularly will keep you from having to cram right before an exam.

Skills to Improve Note Taking

Two special skills that can improve classroom note taking are handwriting efficiency and listening efficiency.

Handwriting efficiency includes legibility and speed. You must be able to write quickly enough not to miss important information in fast-paced lectures, and you must be able to read what you write.

You can improve your speed by using abbreviations, omitting connecting words and streamlining your handwriting.

Listening efficiency is the ability to listen attentively while writing down what the instructor has said. You must be able to store one or more sentences in your memory so that you can write it down when you complete the current sentence.

Study Skills

Day 9

Activity

Reading, previewing and creating study notes. Administer Vocabulary Test 1.

Objective

After completion of this lesson, the trainees will have a better understanding of the tools that textbook editors and authors use to aid readers in their understanding of the material. Trainees will be able to:

- ⇒ preview a textbook selection
- ⇒ mark the selection
- ⇒ prepare study notes on the selection

Materials and Supplies

- Highlighters
- Selected articles or textbook material

Key Terms

- Preview
- Paragraph
- Enumeration
- Summary
- Preface
- Signal Words

Study Skills

Day 9

Textbook Previewing, Marking and Notetaking

Previewing is an important step in reading an article or textbook chapter. Learning to preview your textbook is a simple technique to assist you when studying. A preview is a quick 5-6 minute survey that provides you with an overall picture of what you are reading. There are 4 basic steps to previewing a selection:

1. **Study the Title.** The title gives you a summary of the selection.
2. **Read the Preface or Introduction.** This usually provides you with information about major details in the selection.
3. **Look for headings and subheadings.** Main ideas can often be found in subheadings. The relationship between main heads and subheads are often keys to important ideas.
4. **Flip through the selection, looking at charts, pictures and graphs.** These items provide additional information about the subject and can also simulate interest in further reading.

The purpose of marking is to set off certain points so that you can easily return to them later when you make your study notes. You can mark of significant ideas and details by: 1) underlining or highlighting 2) numbering 3) checking or, 4) starring.

Marking should be an active, yet selective process. Only mark the information you are fairly sure is important. Following are some keys to important material you should consider for marking:

- ə Definitions and examples
- ə Enumerations
- ə Signal Words
- ə Headings and Subheadings
- ə Main Ideas in the paragraphs

Textbook Notes

One of the best-known facts about learning is that the better organized the information is, the easier it is to learn. Therefore, organize the information in your textbooks by marking

what you want to learn in them. Then, use your marking as a guide in making well-organized summaries of the information and learn the material by studying your notes.

There are at least three reasons for note taking:

1. Write descriptive titles. Write titles for notes that accurately describe the information that you want to learn.
2. Make major details stand out.
3. Include minor details that may often be examples.

There are at least three advantages to making notes on cards rather than on notebook paper. First, cards make it possible to integrate class notes and textbook notes easily. Information in class notes may be copied onto related textbook notes so that all the information about a topic is in one place for efficient study. Second, cards make it possible to separate information that you have learned from information that you have not learned. By separating “learned” notes from “unlearned” notes, you can readily direct your attention toward studying information that you have not yet learned. Third, cards are convenient to study at times when studying a notebook is inconvenient. You can study notes on cards while walking from class to class or even while standing on a bus; notes on notebook paper are inconvenient to study at such times.

Homework: Read the following article and practice the methods described above to summarize its content. Be prepared to discuss in class.

Study Skills

Day 10

Activity

Discuss ways to recall information in the learning process. Assign new HAZMAT vocabulary words.

Objective

After completion of this lesson, the trainees will explore some effective study skills that will assist them in retaining what they are studying. They will be able to:

- ⇒ Use several memory techniques
- ⇒ Effectively use classroom and textbook notes

Materials and Supplies

- Trainee Guide

Key Terms

- Reciting and Reviewing
- Mnemonics
- Acronyms
- Senses

Study Skills

Day 10

Retaining Information

Reciting and Reviewing

Reciting is the act of repeating information silently or aloud to learn and remember it. Trainees who spend most of their study time reciting rather than memorizing do better on tests because reciting gives them practice in answering test questions.

Recite, don't memorize.

Actors memorize their parts in plays to speak them word for word, but trainees recite to learn and remember information, not to memorize it. Use the following procedures for reciting from well-organized notes.

1. Read the title of the information to be learned and turn it into a question.
2. Try to answer the question silently or aloud to yourself without reading your notes.
3. Read the information in notes to make certain that you recited it correctly. If you did not, re-read the information and then immediately try to recite it again.

When you recite, keep in mind that there is not a one-to-one relationship between the amount of information to be learned and the amount of time needed to learn it. For instance, if you must learn sixty terms for a psychology test, you may learn thirty of them in an hour. However, it might take you two or three hours to learn the other thirty terms because they might include terms with meanings that are especially difficult to understand or remember.

Review frequently.

Reviewing is the repeated reciting of information that counteracts the effects of normal forgetfulness.

We tend to forget 30 to 40 percent of what we learn within twenty-four hours after we learn it. For example, after reciting for an hour, a student had learned the information on twenty of eighty cards he had prepared to study for a physics test. However, when he reviewed the twenty "learned" cards the next day, he discovered that he had forgotten information on six of them. What happened to him is what happens to most of us; we forget 30 to 40 percent of what we learn within twenty-four hours after we learn it.

To review notes on cards, maintain a deck of "learned" cards and a deck of "unlearned" cards. Then, each time you recite:

1. Begin by reviewing the deck of "learned" cards. If you have forgotten information on a card, put it back in the "learned" deck.
2. Recite the "unlearned" cards, attempting to move as many as you can into the "learned" deck. Continue in this way until you can accurately recite all the information twenty-four hours after all the cards are in the "learned" deck.

To review notes on notebook paper, place checks in pencil next to information as you learn it. Then, each time you recite:

1. Begin by reviewing checked information, and erase checks next to information you have forgotten.
2. Recite the information that is not checked, attempting to place checks next to as much of it as you can.

Continue in this way until you can accurately recite all the information twenty-four hours after placing pencil checks next to it.

Prepare Class Notes for Reciting

It is almost always important to learn everything in class notes before a test or examination. When reciting from notes on cards, combine information about a topic in class notes and a textbook on the same card so that all the information is in one place for efficient learning.

Use Several Senses

Make sure you are using several senses (hearing, seeing, doing) in the learning process. Information can be understood and retained more effectively when multiple senses are involved in the learning process.

Walking

When I was a college student, I complained to a friend that I was having difficulty learning information for a test. She told me that her drama professor had mentioned that actors tend to learn parts in plays more quickly if they study them while walking rather than while sitting. When I applied her teacher's advice to my studying, I found that walking while reciting did, in fact, help me to learn information for my courses more quickly. Why not experiment to find out whether you learn more efficiently while walking outdoors than while sitting inside?

Writing

Writing is used to learn many of the skills that are taught in colleges, such as the skills that you need to solve mathematical problems and to translate a foreign language into English. You can also use writing to learn information by reciting it, try writing it on paper. Some trainees report that writing provides them with the additional reinforcement they need to learn and remember some kinds of information.

Visualizing

A visualization is a mental image, formed to aid the recall of information.

One young man devised the following visualization to learn three types of social mobility for his sociology course.

Types of Social Mobility

Horizontal (from one status to a similar status)

Vertical (from one status to a higher or lower status)

Visualizations

I changed jobs from pumping gas to parking cars.

I changed jobs from parking cars to being a

management trainee for an insurance company.

Intergenerational (when the status of family members changes from one generation to another)

My grandfather was laborer but my father supervises skilled factory workers.

The student used the visualizations to help him understand, remember, and recall the three types of social mobility. *Experiment with mnemonic acronyms, mnemonic sentences, and visualizations. You are likely to find one of these memory-aiding devices more helpful to you than the others.*

Use Mnemonics

Mnemonic (ni-mon'ik) means "to help the memory." The rhyming jingle "I before e, except after c" is a mnemonic device for remembering a spelling principle. This section explains three types of mnemonic devices that are helpful for learning information: acronyms, sentences, and visualization.

An **acronym** is a word made from the initial letters of other words. For instance, the first letters of the three types of advertising summarized below spell **SIP**.

Selective advertising

Institutional advertising

Primary demand advertising

You can recall the names of the three types of advertising by using the acronym SIP: S recalls Selective, I recalls Institutional, P recalls Primary.

RICE is a mnemonic acronym used by medical trainees to recall the treatment for sudden, painful injuries to a muscle or joint.

Rest

Ice

Compression

Elevation

R recalls rest, I recalls ice, and so on. The treatment is to rest the injured part, apply ice for ten minutes at a time, wrap the muscle or joint in a reasonably snug elastic bandage to reduce swelling, and elevate the injured part above the level of the heart. Mnemonics such as RICE are passed on among medical trainees in much the same way nursery rhymes are passed on among children.

A mnemonic acronym can be a nonsense word. The following example explains the emotional stages that terminally ill people often experience when they learn they are about to die. The stages are as follows:

Denial

Anger

Bargaining

Depression

Acceptance

You can use the nonsense acronym DABDA to learn the stages in the correct sequence: D recalls Denial, A recalls Anger, and so on.

A mnemonic sentence is a sentence in which the initial letters of words in the sentence are the same as the initial letters of words that need to be recalled. Following is a well-known mnemonic sentence.

My	Very	Earthy	Mother	Just	Served	Us	Nine	Pizzas.
e	e	a	a	u	a	r	e	l
r	n	r	r	p	t	a	p	u
c	u	t	s	i	u	n	t	t
u	s	h		t	r	u	u	o
r				e	n	s	n	
y				r			e	

You can use this sentence to recall the sequence of the planets, starting with the one nearest the sun (Mercury) and proceeding to the one farthest from the sun (Pluto). The M in My recalls Mercury, the V in Very recalls Venus, and so on. The sentence is much easier to remember than the letters MVEMJSUNP - the initial letters of the names of the planets.

Mnemonic sentences are particularly useful when the first letters of words to be recalled do not spell an acronym and when you must learn information in a specific sequence.

Example: A student had difficulty making a mnemonic acronym to learn five types of societies for his sociology course.

Hunting

Pastoral

Horticultural

Agricultural

Industrial

He needed to learn the five types of societies in this sequence, which begins with the most primitive and concludes with the most advanced type of society. He used the letters HPHAI to construct the following mnemonic sentence.

Have Paul Haul Agnes Indoors.

Memory experts claim that mnemonic devices are easier to remember when they are funny, fanciful, or ridiculous. The person who wrote this mnemonic sentence has friends named Paul and Agnes; this sentence is funny to him. The H in Have recalls Hunting, the P in Paul recalls Pastoral, and so on. Since silly sentences are easier to remember than serious one, be as fanciful as you please when you write mnemonic sentences.

Study Skills

Day 11

Headings & Subheadings

Introductions to passages often give information about major details.

A good tool for improving comprehension is to look for clues in the text. The following are frequently used in texts:

1. Subheadings
2. Words in italics or boldface
3. Numbers, graphs, tables
4. Pictures with identifying information
5. Statements in introductions

Subheadings are used to identify the main details in a passage.

Activity

Discuss headings, subheadings, and other visual clues to reading text material. Assign the students to locate the visual clues to the content of the article “Toxic Targets” that is attached.

Objective

After scanning the article for reading clues, the trainees will understand how the editor helped the reader to comprehend the content of the article. The trainees will have an understanding of how to use visual clues such as headings and subheadings to help them to comprehend reading material

Materials and Supplies

- Article, “Toxic Targets” from *E Magazine* (July-August, 1998)
- Other magazine or newspaper articles of choice

Key Terms:

- Italics
- Boldface

DAY 12 & 13

Recognizing the Main Idea

A main idea is a statement about the specific way in which a topic is discussed. To improve your reading comprehension, you must locate the main idea in a paragraph quickly:

Underline the main idea in the following paragraph:

Laborers know that construction work of any type can be dangerous. In response, the typical laborer develops a sixth sense for spotting hazards on the job. This skill is developed through experience, training, and sharing of stories with co-workers. The ability to recognize and respond to hazards is very important to the health and safety of any worker. What you will find during this course is that many aspects of hazardous waste work are similar to the other types of construction work. But you will also see that there are unique aspects to it. The purpose of this section of the course is to improve your ability to identify hazards associated with hazardous waste work.

Read the following passage and underline the main idea of the paragraph.

Protective garments such as gloves, suits, and boots are very commonly used on waste site jobs to protect workers against skin exposure to chemicals. It is true that the potential for exposure is highest from the breathing in of chemicals. But skin exposure is also very important. Some chemicals can burn or irritate the skin. Other chemicals can pass right through the skin without causing any pain or redness to serve as a warning. Chemicals that can pass through the skin are capable of causing eventual damage to other organs such as the liver or nervous system. To protect against this hazard, several different types of chemical protective clothing (CPC) have been developed.

Activity

Reading and analysis.

Objective

The trainees will learn how to read through material to isolate the main idea.

Materials

- Magazine articles
- Pen and paper

Key Terms

- Main idea

Instructor's Notes

There are several case studies that are provided for your use in reinforcing this lesson. You should also consider using newspaper articles and magazine articles that feature environmental justice stories from your area as a way to inform the trainees about the issues that should be important to them and other community residents.

Homework

Assign the students to read an article and pick out the main idea(s).

AGRICULTURE STREET LANDFILL CASE STUDY

The following information is adapted from newspaper articles and other publications prepared by Xavier University's Deep South Center for Environmental Justice (DSCEJ) on the Agriculture Street Landfill.

The subdivision of Gordon Plaza and Press Park were built on a portion of land that was used as a municipal landfill for more than 50 years. More than 1,000 people, all African-Americans, live on top of the landfill. [See attached map.]

From 1910 to 1957, an incinerator reportedly operated on the site. The incinerator burned trash. The ashes were then spread over the landfill. According to city records, after 1950, the site was used for wastes including trees and lumber, garbage, construction debris, and large solid objects such as automobiles. Liquid waste, both hazardous and non-hazardous, some of which was contained in large drums, was also deposited there.

In 1969, the federal government created a home ownership program to encourage lower income families to purchase homes. Press Park was the first housing project on this program in New Orleans. It allowed people to apply a portion of their rent to the down payment for the purchase of a home. This project involved the construction of 200 townhouses. In 1977, construction began on a second subdivision, Gordon Plaza. It consists of 67 single-family homes.

In 1983, a portion of the Agriculture Street landfill site was purchased by the Orleans Parish School Board as a location for an elementary school. In spite of concerns about the previous use of the site as a dump, and an engineering survey which concluded that heavy metals and other materials in the soil could be harmful, Moton Elementary School was built on the site. Continued complaints and concerns caused school officials to close the \$5.9 million school in August of 1995.

Site inspections by the Environmental Protection Agency (EPA) in 1986 and 1993 led to the discovery of arsenic, mercury, zinc, cadmium, lead and eleven (11) toxic chemical compounds. Although there is disagreement as to whether these chemicals are at harmful levels, most experts agree that the lead contamination is cause for concern. Children get lead poisoning easily because their bodies absorb lead twice as quickly as adults' bodies. High levels of lead in children can cause learning disabilities and even death. Children are likely to pick up lead from playing in the soil and putting their fingers in their mouths.

In a health survey conducted by Xavier University's DSCEJ in 1994, premature births and respiratory problems were shown to have occurred too often. Also, almost 32% of the children in the survey reported headaches and stomachaches that were bad enough to cause them to miss school.

On December 16, 1994, the EPA placed the Agriculture Street Landfill site on the National Priorities List. This means that it is considered to be one of the more polluted areas in the country and therefore federal money is available for cleanup. Since then, the EPA has delayed a decision on starting the cleanup, which would involve removing contaminated top soil and replacing it with non-contaminated soil. Some of the people who live in the area feel that the neighborhood cannot be made safe. They want Congress to provide millions of dollars to move them to a safer area. U.S. Representative William Jefferson of New Orleans is on the side of these residents.

*From the Environmental Justice Teacher Training Manual developed by
DSCEJ*

Risky Business: An Environmental Justice Story

By: Bernice Powell Jackson

The picture of laughing children sliding down a hill is marred by the knowledge that the hill is composed of dirt contaminated by dioxin, pentachlorophenol and creosote compounds. The children have climbed through one of the two holes in the fence which was put up to keep people out of this Environmental Protection Agency (EPA) clean-up site. Children being children and in the process endangering their health.

That's the story of one African American community in Pensacola, FL where not one, but two contaminated sites are located. Environmental racism at its worst. Environmental racism when two companies which contaminated this community abandoned their plants. Environmental racism when local government has turned its back on these residents. Environmental racism when the EPA chose a precipitous course of action in its initial clean-up activities.

For nearly 40 years, the Escambia Treating Company operated its wood treatment plant, taking few environmental precautions. Wastes were placed in an unlined landfill, an unlined containment pond and unlabeled drums. By the 1980's, when the extent of the contamination became obvious, the company went bankrupt and abandoned the site. Nearly a thousand people live within one-quarter of a mile of this site, with five day care centers, one hospital and three public schools close-by.

For nearly a decade the site went untreated while near-by residents increasingly became sick. Suddenly, in 1991 the EPA designated the site as an emergency removal program and hired a contractor to excavate nearly 260,000 cubic yards of highly contaminated soil to create what residents call Mt. Dioxin, an enormous mountain of highly contaminated soil. The excavation also created a huge hole with a 40 foot drop from the yards bordering it. Residents then found themselves even more exposed to the toxins.

Nearby is another toxic waste site where the Argrico Chemical Company was once located. This plant manufactured sulfuric acid at the turn of the century and later produced agricultural chemicals. It closed in 1975, leaving behind many toxic wastes. Although placed on the EPA National Priorities List in 1989, it wasn't even enclosed by a fence until 1993. Excavation of the surface contaminants began in 1995, despite the opposition of the community, which believed their health was so at risk that they wanted to be relocated rather than have this site cleaned-up.

In 1998, desperate to stop the digging at the Escambia site, the residents of this twice-contaminated community began to meet. The homeowners, tenants, former workers and other concerned people formed Citizens Against Toxic Exposure (CATE).

A retired teacher who grew up in the community next to the Escambia plant became the president. "We agreed as a group to stay together to make sure that justice was achieved," said Margaret Williams.

And stay together they have. When EPA issued a preliminary report earlier this year proposing that only 66 of the 358 households be relocated, CATE declared that no one would move unless everyone could. The EPA has been holding meetings with local residents and plans to issue a final report with recommendations at the end of June.

This Pensacola community has the potential of becoming the largest environmental relocation ever- even larger than the infamous Love Canal in New York. Indeed, it is “probably more contaminated by a broad range of carcinogenic chemicals that threaten people living immediately next door to the site than any other contaminated site in the country,” said Joel Hirschhorn, an expert on hazardous waste clean-up.

Many people of color in this nation feel that our lives are worth less to our country than those of European American background. But at the heart of the environmental justice movement is the belief that all people are of value and have a right to healthy, sustainable communities. That’s what the people of the Citizens Against Toxic Exposure (CATE) in Pensacola, FL believe. That’s what they are fighting for.

From The Civil Rights Journal

From the **Family Circle**

Mrs. Robinson's Crusade: Cleaning Up Cancer Alley

By: Melba Newsome

Sweat trickled down Florence Robinson's face as she pulled the stubborn weeds from her garden. Living in the small town of Alsen, Louisiana for over 15 years, she had grown accustomed to the unpleasant odors that frequently permeated the air. But on that blustery day in October 1988, the smells were so overpowering, she started to gag. Shakily, she stumbled inside her house and spent the rest of the day nauseated with a crippling headache. She awoke the next day feeling raw all the way from her nose to her chest. That winter she suffered one malady after another. Diagnosed with constricted bronchials, she was hospitalized twice, once for pneumonia.

Florence, 59, a biology professor at Southern University in nearby Baton Rouge, scoured environmental and health journals looking for the cause of her illnesses. She began to recognize almost identical symptoms in others who suffered acute chemical exposure. Reluctantly she came to believe that she, too, had been burned by a chemical. To this day she has a reduced sense of smell, asthma, a persistent cough and a weakened immune system.

Alsen, once an idyllic rural community, is at the northern tip of an industrial corridor now known as "Cancer Alley." Home to several chemical industries, it also has two Superfund sites and a hazardous waste incinerator. All are located in the backyards of its poor and mostly black citizens whose ties to the land span generations.

The daughter of a principal and a schoolteacher, Florence was born in Monroe, Louisiana, and grew up in several cities. In 1971, while finishing postgraduate work at Cornell University, she received an offer to teach at Southern University. "I was a divorced mother with an 8-year-old son, and this tight-knit community seemed perfect for us," she recalls.

Louisiana was perfect for industry, too. Lured by generous tax breaks, cheap land, cheap labor and permissive environmental regulation, industry continues to flock to Louisiana. Many of the country's vinyl and plastic plants - which emit environmental estrogens in their manufacturing process - are located in low-income black communities like Alsen.

Florence didn't initially link her neighbors' cancer, headaches, asthma, birth defects, and miscarriages to environmental factors. "It's just not something you want to believe," she says. But the frequent ailments couldn't be explained away, and slowly she

realized Alsen residents suffered more than their share of illnesses and those closest to the pollution suffered most.

According to Linda Birnbaum Ph.D., director of Experimental Toxicology Division of the US Environmental Protection Agency, environmental estrogens have been linked to Type II diabetes, immune system suppression, respiratory problems in children, birth defects, impaired neurological development and disruption of the hormonal and reproductive systems. The International Agency Research on Cancer in Lyon, France, a division of the World Health Organization, has classified the chemical dioxin – not an estrogen but a byproduct of incineration - as cancerous to humans.

Elizabeth Pate, a longtime Alsen resident, suffers from severe rashes she believes are related to her surroundings. “Whenever I go away for a while, my rashes disappear. No sooner than I come home, it’s back again.”

In the nine homes on Florence’s street, seven people contracted cancer in as many years. In 1994 Elizabeth’s husband, Brother Pate, was stricken with bladder cancer and died within the year. “Nobody knows what it’s like unless you live here day and night,” she says. “Two children in the family down the street got cancer in the same year. I live in fear of the same thing every day.”

Edith Wallace is the mother of those two. “They has surgery on the same day.” She says. Her daughter underwent a mastectomy; her son had surgery for melanoma. “Don’t forget about Stella and Wyatt Woods,” she adds referring to two other neighbors who died of cancer.

“One day, I realized that people all around me were sick or dying, and I knew something had to change,” says Florence. That day came in 1989 when Rollins Environmental Services, now owned by Laidlaw Environmental Services, tried to build three new hazardous waste incinerators and three new landfills. Florence decided her community already had its quota of health hazards. She wasn’t going to permit any more.

Florence decided to conduct her own investigation, and she discovered that in more than 20 years, Rollins had never had a permanent operating permit and had been cited for numerous violations, including having employees overcome by noxious gases and failing to notify authorities that it was receiving radioactive material and depositing it into landfills.

Citizens had a common goal: Stop Rollins from expanding. But concern without a voice and strategy was useless. Florence gave them both when she was instrumental in organizing the North Baton Rouge Environmental Association (NBREA).

First, the association went door to door to inform the community of the proposed expansion. They passed out flyers and sent out press releases detailing the company’s past practices, then marched to the state capitol.

A surprised Department of Environmental Quality board found two busloads of citizens waiting for them, all anxious to tell their side. “Everybody from great-grandmothers to teenagers came to testify,” says Florence.

The strategy worked. Instead of three new incinerators, Rollins was allowed only one. And not until the old one was shut down. The landfill request was denied.

That battle was the first in a series Florence led against Rollins. Twice more, the company was stopped from opening hazardous waste landfills. And when it applied to

extend its 10-year-old manufacturing tax break by claiming it “manufactured” clean air and clean water, the association was there to oppose the company again.

“We had to jump through hoops to prove the obvious: Rollins didn’t manufacture anything so it wasn’t entitled to a manufacturers’ “tax break,” says Florence. Ultimately the judge agreed and denied the application. In 1992 Florence presented to the Civil Rights Commission evidence of the disproportionate placement of industry in minority communities by linking ZIP codes to the amount of toxins released. For example, Alsen’s Zip code is 92 percent black and has the lowest per capita income in the parish. It receives more than 62 million pounds of industrial emissions each year. Meanwhile, the parish’s ZIP code with the highest per capita income where blacks made up only 8.4 percent of the population, has no emissions.

Then, in 1993, she co-founded the Communities at Risk Coalition Network to assist citizens - many of whom are poor and minority - who live near Superfund or hazardous waste sites and bear an unfair share of environmental risk.

The combination of her passion and compassion has earned Florence a national reputation, and a workload that would bury others half her age. A member of the National Commission on Superfund, she has also recently been appointed to an EPA committee to help prioritize the screening of more than 70,000 manmade chemicals.

Congressman Henry Waxman (D-California) describes Florence as one of the true heroes in the Superfund debate. “Fighting her battles against big corporations and their congressional supporters ... she represents the true victims, the people who live by toxics waste dumps, who have become sick and have been forced to move from their homes.”

Alsen’s plight is a big part of what keeps Florence organizing marches where she finds a herself pitched in battles with government officials. “These people are more than my neighbors,” she says. “They’re my family.”

Just this past June, legislation that would have allowed companies to audit themselves for environmental compliance was defeated. “That’s another little victory for us,” says Florence. “We can make industries leave, but we can keep them honest.

“People don’t understand that not only can they make a difference, it’s their responsibility to do so,” she adds. “Change comes little by little. This is not a battle for the impatient.”

Patience seems to be something Florence possesses in abundance as she climbs behind the wheel of her pickup en route to yet another demonstration. Her bumper sticker reads: ***IF THE PEOPLE WILL LEAD, EVENTUALLY THE LEADERS WILL FOLLOW.***

What's In the Air?

“The Convent- Shintech Dispute”

The following information was developed from newspaper articles and reports prepared by Xavier University's Deep South Center for Environmental Justice.

Convent, Louisiana, is a town of about 2,000 residents located in St. James Parish along the Mississippi River 45 miles northwest of New Orleans. The town is 82 % African American with about 40 % of the total population living below poverty level. According to the 1995 Toxic Release Inventory, St. James parish ranked fourth in the state in the 1995 Emissions to Air. These releases refer to any chemicals released into the air, intentionally or by accident, which the state considers to be potentially toxic or harmful. The top five industries responsible for these air emissions include IMC-Argrico Chemical Company (The Uncle Sam Plant) and Star Enterprise, both of which are located in Convent. (*See handouts.*)

Shintech Incorporated, a Japanese-owned plant, proposes building a chemical manufacturing facility near Convent. This facility would produce polyvinylchloride (PVC). PVC is a plastic that is used in the construction industry in the form of pipes and ducts, electric cables and wire insulation, windows, flooring and wall coverings. Its production involves many toxic chemicals – either as chemicals to make PVC, additives to make it useful, or emissions from various processes involved in making it. One family of chemicals emitted is dioxins, which are known to cause cancer in animals and humans.

Shintech officials report that the location of this plant near Convent was decided based on access to deep-water ports and natural gas, state and local support, and enough land to create space between the plant and the community. The plant will provide jobs and money for the community, and money to the state of Louisiana. The total number of permanent jobs is estimated to be 165. Studies of similar plant openings, however, indicate that many of the jobs go to people outside the state. It is possible that a small percentage of the jobs, or even none of them, would go to people living in the Convent area.

The Shintech case has become the most watched and important civil rights case in history involving charges of environmental racism. This means that the people who are against this plant being built near Convent feel that its proposed location there is because Convent is mostly African American and poor. They also feel that Convent already has more than its share of toxic chemical-producing industries. The people against the plant have filed a formal civil rights complaint which the Environmental Protection Agency (EPA) will have to address in the near future.

*From the Environmental Justice Teacher Training Manual developed by
DSCEJ*

DAYS 14 & 15

Major and Minor Details

Sometimes reading passages have only one level of details. But more often than not, reading selections will contain several levels of details. In those cases it is necessary to distinguish between major and minor details.

Major details are explanations, examples, or other supporting information about a main idea. Minor details are explanations, examples, and other supporting information about a major detail. The relationship between main ideas and details may be shown in various ways, but outlines are the most common way to show them, and are an excellent study tool. In outlines, major details are labeled by Roman numerals and minor details by capital letters.

Activity

Reading and analyzing.

Objective

The trainees will learn to outline difficult reading passages by isolating the main ideas, and identifying major and minor details that support the main ideas.

Materials

- **HazMat Training Manual handouts**
- **Pen and Paper**

Key Terms

- **Major details**
- **Minor details**

Instructor's Notes

Have the trainees work on outlining one or two handouts during class time and assign one or two for homework and discussion on day 15.

Homework

Have the trainees outline one or two of the HazMat handouts to discuss the following day.

UNIT 2: HEALTH AND SAFETY HANDOUT 3

Acute vs. Chronic Exposures

Chemical exposures can be classified as chronic or acute. Acute exposures are usually short-term, and the chemical is quickly taken into the body. Chronic exposures occur over a longer period, usually with repeated instances of contact.

For many agents, the toxic effects following an acute exposure are quite different from those produced by chronic exposures. For example, the primary toxic effect of acute exposure to benzene is central nervous system depression causing confusion, a high feeling, and possibly interfering with the drive to breathe. Chronic exposures, however, can cause leukemia.

Acute exposure may have both immediate and delayed effects on the body. Carbon monoxide poisoning, for example, can be followed by signs of brain impairment (such as confusion, lack of coordination, and behavioral changes) days or weeks after recovery. Other effects of acute exposure may not be evident until years after an exposure has occurred. Cancer that develops after a single very heavy acute exposure to asbestos is one example.

Chronic exposures have delayed effects, simply because the exposure itself occurs over a period of time. Effects are usually throughout the body, rather than local. Less is known about the effects of chronic exposure because the impact is much more difficult to study. The disease and its symptoms may develop so slowly it cannot be determined whether it is the result of exposure to a chemical, or because of some other reason. Cancer and other progressive physical (and occasionally, mental) impairments can follow chronic exposure to certain chemicals. Chronic exposure to trichloroethylene, for instance, causes liver fibrosis. Low-level exposures to lead can, over time, cause kidney disease.

UNIT 2: HEALTH AND SAFETY HANDOUT 4

Routes of Exposure: Injection

Injection can also be considered a route of exposure for toxic chemicals. Injection can be intradermal (into the skin), subcutaneous (under the skin), intravenous (into a vein), or intramuscular (into a muscle). First responders are not as commonly exposed via injection as by the other three routes.

Generally, injections are the result of contact with a physical agent, such as:

- Syringes
- High pressure devices
- Sharp objects such as jagged pieces of glass or metal

Used syringes are often contaminated with blood. If the blood carries a pathogen such as hepatitis B or C or the human immunodeficiency virus (HIV), the individual whose skin is punctured by the used syringe is at risk of contracting the disease. First responders to fires at medical labs or clandestine drug operations can be at significant risk of contact with used syringes.

High pressure devices include process instruments used in various manufacturing industries. These devices are capable of injecting gas or liquid streams at 1500 psi or more. Chemicals in high pressure instruments can easily be injected through eyes, mucous membranes, and damaged skin.

Sharp objects contaminated with chemical or biological hazards can have the same effect as injection with a syringe, particularly if the laceration or puncture is deep. First responders can expect to encounter pieces of broken glass or metal in almost every incident involving a fire or explosion.

Injuries from injection are often more dangerous than injuries from surface contact because chemicals can penetrate more deeply into tissues. Once a foreign material has been injected, it may be impossible to neutralize or remove by washing. Because of the depth of penetration, it is also very easy to underestimate the extent of injury. Initial effects may not be apparent; health problems may surface some time after the incident.

Injection also damages the integrity of the skin, allowing other chemicals to enter the body. Even small puncture wounds from syringes can allow penetration of contaminants that might have otherwise remained on the surface of the skin.

UNIT 3: HAZARDOUS MATERIALS HANDOUT 8

Other Markings

There is no standardized system for marking non-bulk containers such as bags, drums, bottles, etc. Some industries mark containers precisely; others do not. Some compressed gas cylinders are color-coded, but color-coding is not regulated or required, so it is not safe to try to identify cylinders based on color alone.

Bulk containers at fixed site facilities are often stenciled with a name or number that identifies the product. However, there is no industry standard for marking bulk containers at fixed sites. As noted on page 78 of the Student Text, the NFPA 704 marking system is used at some fixed sites to indicate the hazards of materials handled or used at that location. However, these placards are not required in most jurisdictions.

In addition to DOT placards used on cargo tanks and tank cars, vehicles can also be identified by markings. Cargo tank cabs usually carry the company name, logo, colors or even product names. In addition, all compressed gases—flammable and nonflammable—and all cryogenic liquids are required to have their proper shipping names (e.g., Liquefied Petroleum Gas) or common technical names (e.g., LPG) marked on both sides and both ends of the cargo tank. Hydrogen peroxide is the only non-cryogenic liquid that must be marked. Cargo tanks also carry specification plates in an accessible location. Although specification plates describe the tank itself, rather than the product, this information may be useful in certain situations.

Tank cars are sometimes stenciled with the name of the commodity normally carried in that car. In addition, tank cars can be identified by their reporting marks, sometimes called Initials,TM and the car number, a specific sequence of numbers that follows the reporting marks. The reporting marks and numbers are stenciled to the left on both sides of the car and on both ends. The reporting marks indicate ownership of the car. The car's initials and number can be used to determine the car's contents from shipping papers or the railroad's computer database. Specification numbers are stenciled on the right sides of tank cars, opposite the reporting marks, and are stamped on the ends of the tank. They identify the specifications to which the tank was built, but cannot be used to determine the exact identity of the cargo.

UNIT 4: THE PLANNED RESPONSE HANDOUT 20

High Temperature Protective Clothing

Occasionally you may be required to work in high heat situations that exceed the protection provided by your structural fire fighting gear. For example, petrochemical fires often involve extremely high temperatures. In these cases, you may need additional protective clothing.

High temperature protective clothing is designed to protect primarily against radiant heat, which is the heat generated by a heat source like a fire (as opposed to ambient heat or contact with a hot surface). Generally, high temperature protective clothing should only be used in situations where there is little or no chance of direct contact with chemical vapors or splashes.

The most common types of high temperature gear used by fire departments are proximity suits. A proximity suit can be a two-piece coat and pants ensemble or coveralls; however, both designs are used with a hood. This type of clothing allows responders to spend a short period of time in close proximity to flame and radiant heat. For instance, they are often used in rescue operations at aircraft crash fires. The outer shell of the garment is a highly reflective, aluminized fabric. It covers a flame-retardant inner shell. The outer shell can crack or flake after repeated use, or if it is accidentally exposed to a chemical. When this happens, the clothing should be discarded because it will not offer sufficient thermal protection.

Fire entry suits are another type of high temperature gear which are used less frequently than proximity suits. They provide full protection for short duration entry into a total flame environment, such as for closing a valve. Fire entry suits can withstand temperatures up to 2,000°F.

UNIT 4: THE PLANNED RESPONSE HANDOUT 21

Supplied Air Respirators

In some hazardous materials incidents, it may not be practical to use SCBA respirators. In a confined space, for example, SCBA may have too high a profile, prohibiting entry. So in certain situations, responders may safely use supplied air respirators (SARs), rather than SCBA.

Like SCBA, SARs supply air from a separate source. Unlike SCBA, however, SAR equipment supplies air from a source located some distance away, and connected to the user's facepiece by an air line hose. SARs have both advantages and disadvantages. SARs allow longer work periods than SCBAs and are less bulky. But because the user is tethered, exit out of the hazard area must be made the same way as entry. For this reason, the user must wear an escape tank with five or more minutes of air. SARs also impair mobility and are susceptible to punctures or cuts.

As the length of the SAR air line increases, it becomes more difficult to deliver air to the facepiece. As a result, the air line should be no longer than 300 feet.

In addition to use during entry, SARs can also be worn by decontamination personnel. This expedites decontamination because switching tanks is not necessary and one team of personnel can often complete the entire decon process. The decon line can be set up near the air source, so the length of the line is not a problem.

As with SCBA equipment, only positive-pressure SARs should be used for hazardous materials response. Combined SCBA/SAR devices are now on the market. They allow the user to operate in either SCBA or SAR mode.

Study Skills Day 16

Basic Test-Taking Strategies

Here are some basic strategies for taking tests:

1. Reduce your test anxiety.
2. Preview tests.
3. Plan your test-taking time.
4. Answer the easiest questions first.
5. Answer all questions unless there's a penalty.
6. Check your answers carefully.
7. Look for qualifying words.
8. Listen carefully to the Instructor's directions or comments.

Reduce Your Test Anxiety

Test anxiety is uneasiness or apprehension experienced because of the need to take a test. The physical symptoms of test anxiety include excessive sweating, discomfort in the stomach, headaches, rapid heartbeat, and shortness of breath.

Since anxiety results from fear, you can usually avoid test anxiety by preparing thoroughly for a test. If you are well prepared for a test, you will not have much to fear. It is also important to arrive at tests well rested, on time, and unrushed. You will not do your best on a test if you are tired or if you have created unnecessary anxiety for yourself by rushing into the test room at the last minute.

In addition, knowing and using good test-taking procedures will help you to reduce test anxiety. Anxiety directs thoughts inward, to think about discomfort; but good test-taking methods direct thoughts outward, to think about answering test questions correctly. If you use these methods, you will be so busy in the worthwhile pursuit of answering questions correctly that your mind will probably not turn to futile thoughts of fear and taking tests. If you become excited during tests, keep in mind that it is normal for test-takers to be excited, and that excitement can help you do your best on tests, in the same way it helps athletes do their best during athletic competition.

Following are some suggestions to help alleviate test anxiety:

1. Get enough sleep.
2. Eat a good meal.
3. Exercise to reduce tension.
4. Develop a positive attitude.
5. Choose your seat carefully, to make sure you can see a clock.

Preview Tests

Before you answer any questions, preview the test to learn what types of questions you must answer and whether questions are printed on one or both sides of each page.

Then, read the test directions; they may be different from what you expect.

Also listen carefully to everything instructors say on test days. They may be explaining directions that might give trainees difficulty, or they may be warning trainees about typographical errors on tests.

Plan Test-Taking Time

Since there is often too little time to answer all test questions, you must plan how to use the available time. Allocate your test-taking time by finding the answers to the following questions:

1. How many questions must I answer?
2. How many points is each question worth?
3. How much time do I have to answer the questions?

Answer the Easiest Questions First

After you have planned how to use your test-taking time, determine which questions are easiest to answer and answer these questions first. There are at least three different benefits to answering the easiest question before answering the more difficult ones.

1. You will answer all the questions you can answer correctly, in case time runs out before you answer all the questions. When test-taking time is limited, do not waste it trying to answer questions that you will almost certainly answer incorrectly.
2. You might think of answers to some of the difficult questions. Don't worry if you can't answer a question the first time you read it. During the time it takes you to answer other questions, you will often remember answers to questions that you could not remember the first time you read them.
3. You might find answers to some of the difficult questions. Sometimes true-false questions and multiple choice questions are interrelated, so that one question suggests the correct answer to another question. As you can answer these types of questions, look for information that can help you select a correct answer to another question that you were unable to answer the first time.

When you answer true-false or multiple-choice questions, read each question twice and answer it or move on to the next question. When you have read each question twice and answered as many as you can, reread the unanswered question twice and answer it again or move on to the next unanswered question. During the last minute or two of the test, mark some of answer for each question. For instance, you might mark all unanswered true-false questions true, and you might mark "c" for all unanswered multiple choice questions.

Answer all questions, unless there is a penalty for incorrect answers.

Give an answer to every question on a test unless you are specifically told not to answer all questions, as on an essay test. When you do not know an answer to a true-false or multiple-choice question, guess the answer - you might guess correctly.

When you guess at the answer to a true-false question, you have a 50 percent chance of guessing the correct answer. There is a 50 percent chance the answer is true and a 50 percent chance the answer is false.

When you guess at the answer to a multiple-choice question with four answers (a, b, c, or d), you have a 25 percent chance of guessing the correct answer. There is a 25 percent chance the answer is a, a 25 percent chance the answer is b, and so on.

Check Your Answers Carefully

Do not rush when you take tests because other trainees finish before you or because you want to finish before others. Instead, spend time answering questions correctly and checking answers after you write them to make certain that you made no careless errors. However, take care when you check answers to true-false and multiple-choice questions. If you are certain that you have answered a question incorrectly, cross out the incorrect answer and write the correct one. However do not change an answer simply because you are nervous. Trainees who change answers simply because they are nervous about their original answers tend to change correct answers to incorrect answers.

When you change answers on tests, cross out the original answers but leave them visible so that when teachers review test answers you can analyze whether you changed correct answers to incorrect ones. By using this procedure you will soon learn whether you should change answers only when you are absolutely certain that you have written incorrect ones.

Look for Qualifying Words**Listen Carefully to Directions**

Day 17

Activity

Reading and Analysis.

Objective

After completion of this lesson, the trainees will have a better understanding of a strategy that will assist them in taking true-false tests. Trainees will be able to:

- ⇒ Recognize extreme modifiers
- ⇒ Recognize faulty logic
- ⇒ Make basic assumptions about true/false statements

Materials and Supplies

- Trainee Guide

Key Terms

- Extreme Modifiers
- Faulty Reasoning

Homework

Answer true-false questions using what you have learned about extreme modifiers and faulty reasoning.

True-False Questions

True-false questions are statements that test-takers must decide are either true or false.

The basic strategy for answering true-false questions is to assume they are true.

The following types of true-false questions tend to be false:

- Statements that contain extreme modifiers.
- Statements of reason.

Assume Statements Are True

When you are uncertain whether a statement is true or false, the basic strategy for answering a true-false question is to assume it is true. The reason for assuming that statements are true is that there is a definite tendency for true-false tests to include more true statements than false ones. As a result, when you guess the answer to a true-false question, you are more likely to guess the correct answer if you guess it is true.

However, keep in mind that a true-false statement is false if any part of it is false.

Beware of Extreme Modifiers

Extreme modifiers are words such as always, all, only, and never; they tend to appear in false statements. On the other hand, statements that include modifiers such as some, many, and sometimes tend to be true.

Compare the following statements:

T F All businesses adopt and use new technology.

T F Many businesses adopt and use new technology.

The first statement is false, but the second statement is true. All businesses do not adopt and use new technology, but many of them do.

Beware of Faulty Reasoning

True-false questions that state reasons tend to be false, either because they state an incorrect reason or because they do not state all the reasons. This is known as faulty reasoning or faulty logic. For example,

T F Women earn less money than men because they have less education than men.

This statement is false because it states an incorrect reason. Women earn less money than men primarily because of the tradition of paying women less than men and because women have not been given as much opportunity as men to hold high-level, high-paying jobs.

Day 18

Activity

Read and discuss specific strategies for answering multiple-choice questions.

Objective

After completion of this lesson, the trainees will have a better understanding of a strategy that will assist them in taking multiple-choice tests. Trainees will be able to:

- ⇒ Recognize distractors
- ⇒ Analyze choices critically

Materials and Supplies

- Trainee Guide

Key Terms

- Stem
- Distractor

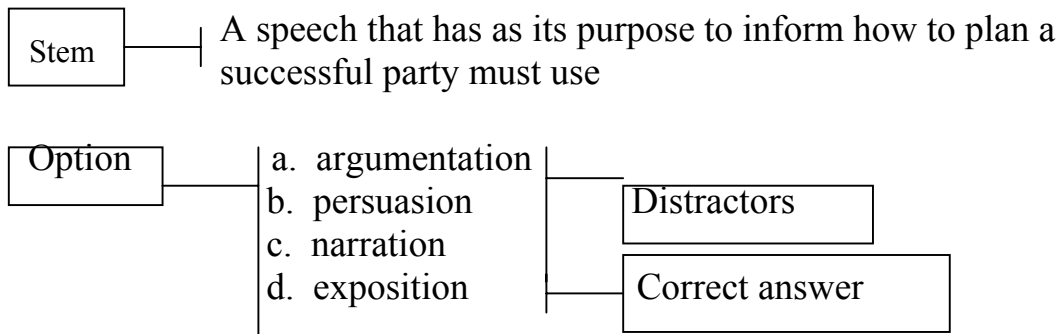
Homework

Answer questions at the end of the lesson using what you learned about multiple-choice questions.

Day 18

Multiple Choice Questions

Multiple-choice questions are incomplete statements followed by possible ways to complete them, or they are questions followed by possible answers. The incomplete statement or question that begins a multiple-choice question is called the stem, and the choices that are given for answers are called options. Options are written so that one is the correct answer and the others are distractors. For example,



There are 5 basic strategies for taking Multiple Choice Questions. These are specific "tips" you can use to help you be successful with testing.

1. **Eliminate Obvious Distractors First.** Analyze the question for clues to eliminate the incorrect answer"

- Can you eliminate an answer with an extreme modifier?
- Can you eliminate an answer that contains an unfamiliar term?
- Can you eliminate an answer that is silly or a joke?

Cross out answers you know are incorrect. This will help you focus on the most reasonable choices. If you think all options are incorrect, the answer would be "none of the above".

2. **Read the entire question carefully. Watch for questions that**

- May say "Which is not....", "What is the incorrect...." Or "Choose the best answer....".
- Make sure to read all of the choices before selecting an answer. The best answer may be further down.

3. **Pay attention to all of the above questions.**

- "All of the Above" is frequently the correct answer when it appears as a choice. To determine the extent of the student's knowledge, instructors sometimes like to list several correct answers and conclude with "all of the above".
- If two statements appear to be true, you are unsure about the third statement, and the fourth choice is "all of the above", then the fourth choice is often correct.

4. Look for two similar-looking answers.

- When two options are similar-looking, the correct answer is often one of the two similar-looking options.

5. Look for the longest answer.

- The longest multiple-choice answer is often the correct choice. The answer may be carefully constructed to be complex.

*You should only use this clue when you have no idea of the answer and must guess.

Study Skills Day 19

Activity

- Discuss Methods for taking Fill-In the Blank Test
- Administer Vocabulary Test 3
- Practice answering fill-in-the-blank questions

Objective

After completion of this lesson, the trainees will have a better understanding of strategies that will assist them in taking fill-in the blank test. Trainees will be able to:

- ⇒ Recognize logical and grammatical clues
- ⇒ Build HAZMAT vocabulary

Materials and Supplies

- Overhead transparency of practice questions
- Vocabulary test 3

Key Terms

- Singular
- Plural
- Vowels

Homework

Complete Fill in the Blank Questions at the end of the lesson.

Study Skills

Day 19

Fill-In Questions

Fill-in questions are statements with deleted portions that test-takers must supply.

For instance:

The emperor _____ divided the Roman Empire into two parts.
It is usually impossible to guess the correct answers to fill-questions that appear on tests.
If you do not know the name of the emperor who divided the Roman Empire into two parts, you are not likely to guess his name (it was Diocletian).

There are 3 basic strategies for answering fill-in-the-blank questions.

I. Decide the type of answer.

The first tip for answering a fill-in question is to decide what type of answer is required. Make sure the answer fits logically and grammatically into the blank. Find the verb in the sentence. If the verb is singular the answer must be singular. If the answer is plural the answer must be plural.

For example:

You should review for an _____ the night before.

The correct answer is exam. The word "an" requires that the answer begin with a vowel sound. The answer test would not be grammatically correct.
When it is unclear what type of answer is required, ask a teacher for clarification.

For instance:

Alexander Hamilton was born in _____.

Since it is unclear what type of answer is needed for this question, you might ask a teacher, "Do you want me to give the place where he was born or the year in which he was born?"

Prepare your question carefully. Don't for example, point to a question and ask a teacher, "What do you mean?" Request clarification by asking questions that help your teachers understand why you are confused.

Alexander Hamilton was born on the island of St. Kitts in the West Indies; the year was 1755.

II. Determine the number of words.

Remember that not all fill-in answers require only one word. When a fill-in question contains two blanks with a space between them, a two-word answer is required.

For instance:

Always and never are examples of _____.

You should know that the correct answer to this question is **extreme modifiers**.

III. Read the question several times.

As you read the question, try to hear what is being asked. If more than one response comes to mind, write both lightly in the margin. Then when you re-read your answers later, select the answer that sounds most familiar to you.

Day 19

Complete the following fill-questions:

1. Plan about _____ minutes to answer each question when you have fifty minutes to answer five questions and each answer has a value of 20 points.
2. By chance you will select _____ correct answers when you guess at the answers to thirty true-false questions.
3. By chance you will select _____ correct answers when you guess at the answers to twenty multiple choice questions that have four options each.
4. True-false questions tend to be _____ when they include an extreme modifier.
5. True-false questions tend to be _____ when they state a reason.
6. "All kids love candy" contains a(n) _____.
7. Jokes and insults tend to be _____ answers when they are options for multiple-choice questions.
8. High and low numbers tend to be _____ answers when they are options for multiple-choice questions.
9. One of two similar-looking statements tends to be a(n) _____ answer when it is an option for multiple choice questions.
10. "All of the above" tends to be a(n) _____ answer when it is an option for multiple-choice questions answer.

Day 20

Activity

Assign new HAZMAT vocabulary words. Read and discuss key strategies for taking essay exams. Practice recognizing test terminology.

Objective

After the completion of this lesson, the trainees will have a better understanding of how to prepare for an essay exam. The trainees will be able to:

- ⇒ Identify 6 steps for writing an exam essay answer
- ⇒ Recognize common test terminology

Key Terms:

- Test terminology
- Transition words

Homework:

Choose one of the following essay questions and answer it using the essay guidelines discussed in this lesson.

- A. Describe the steps of SQ3R. Begin by explaining what it is and when you would use it.
- B. Discuss time management. Begin by defining it and then describe ways that you can control it.
- C. Discuss the basic test taking strategies. Include as many steps as you can.

Essay Tests

Essay answers demand more effort and energy from the test taker than multiple-choice items. Rather than simply recognizing correct answers, you must recall, create, and organize. On a multiple-choice test, all the correct answers are somewhere before you. On an essay exam, however, the only thing in front of you is a question and a blank sheet of paper. This blank sheet of paper can be intimidating to some students. Your job is to recall appropriate ideas for a response and pull them together under the central theme designated in the question. The following suggestions can help you respond effectively:

Translate the Question Frequently the “question” is not a question at all. It may be a statement that you must first turn into a question. Read and re-read this statement that is called a question. Be sure you understand it and then reword it into a question. Even if you begin with a question, translate it into your own words. Simplify the question into straight terms that you can understand. Break the question into its parts.

Answer the Question Your answer should be in response to the question that is asked and not a summary of everything you know about a particular subject. Write with purpose so that the reader can understand your views and relate your points to the subject. Padding your answer by repeating the same idea or including irrelevant information is obvious to teachers and seldom appreciated.

Organize your Response Do not write the first thing to pop into your head. Take a few minutes and jot down ideas. Number the ideas in the order that you wish to present them and use this plan as your outline for writing.

Use an Appropriate Style Your audience for this response is not your best friend or posse but your instructor who is going to give you a grade. Be respectful. Do not use slang. Do not use phrases like “well” or “you know”. They may be appropriate in conversation, but they are not appropriate in formal writing. Avoid empty words and thoughts.

Be Aware of Appearance Research has shown that, on the average, essays written in a clear, legible handwriting receive a grade higher score than essays written somewhat illegibly. Be particular about appearance, and considerate of the reader. Proofread your answer for correct grammar, punctuation, and spelling.

Notice Key Words in Essay Questions Here are some key words and hints for responding to them:

<i>Compare</i>	<i>list the similarities between things</i>
<i>Define</i>	<i>state the meaning so that the term is understood</i>
<i>Discuss</i>	<i>define the issue and elaborate on the advantages/disadvantages</i>
<i>Explain</i>	<i>show cause and effect and give reasons</i>
<i>Summarize</i>	<i>retell the main points</i>

Day 21

Activity

Introduce tables, charts and graphs as a means of improving reading comprehension. Practice identifying factual information from a variety of sources.

Objective

After completion of this lesson, the trainees will have a better understanding of various types of tables, charts, and graphs. Trainees will be able to:

- ⇒ Distinguish between tables, charts and graphs
- ⇒ Identify parts of a table and chart
- ⇒ Read data presented in a table or chart

Key Terms

- Columns
- Rows
- Row headings
- Source
- Title
- Key

Homework

Interpret chart in narrative form.

Day 21

Tables, Charts, and Graphs

Guides and textbooks often include tables, charts, and graphs to summarize or illustrate information. They are used to help you understand and compare factual data in a quick and easy way.

Tables

Tables are well-organized lists of statistical information, they provide an effective way of looking at groups of related numbers. Tables usually provide number information organized in columns and rows. Tables can present various kinds of information such as worker's incomes, average temperatures or population data.

The topic of a table can be found in the title or heading. This is important for identifying the main idea of the table. Columns run from top to bottom. Rows are read from left to right. There is usually a line below the table to give the source of the data.

Median Income

Age in Years	Male	Female
15-19	\$1,786	\$1,698
20-24	\$7,743	\$5,506
25-34	\$16,416	\$7,972
35-44	\$21,649	\$7,851
45-54	\$21,543	\$7,502
55-64	\$17,828	\$5,907
65 and over	\$9,188	\$5,365

Source: U.S. Bureau of the Census, " Money Income & Poverty Status of Families and Persons in the United States: 1982." Current Population Reports, p.12.

1. Read the title. What information is presented in the table?
2. Read the row headings. What information is presented in the third column of the table?
3. Compare the data. How much greater is the median income of men than the median income of women who are 45 to 54 years old?
4. What is the source of this information?

Charts

Like tables, charts display information in columns and rows. Charts, however, may use symbols or pictures to represent data. Symbols are used in place of numbers. A chart uses a key to tell what the symbol stands for.

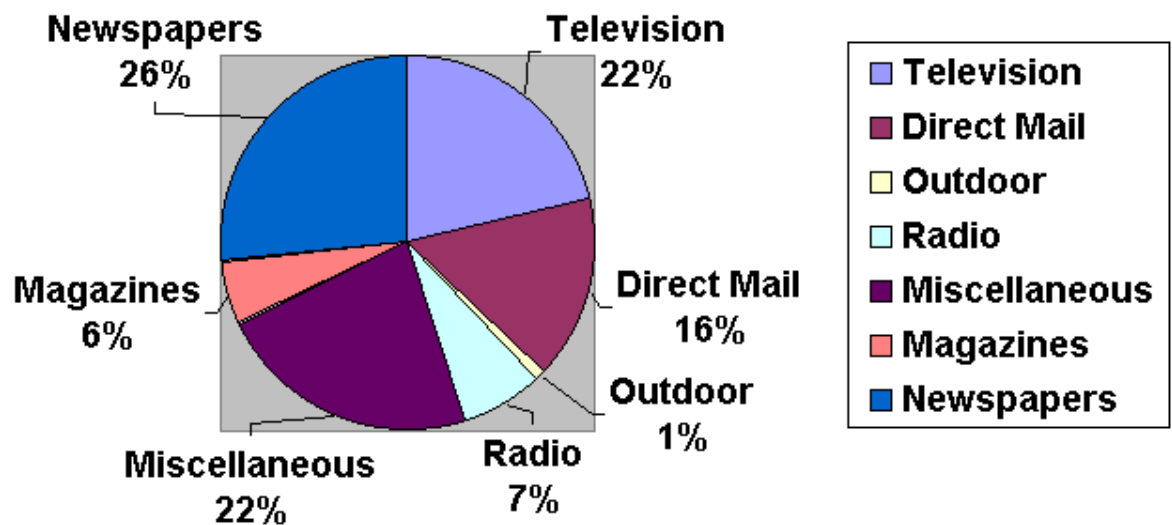
Study Skills

Day 22

Graphs

Graphs in textbooks come in many forms. The most common types of graphs are used for a different purpose; however, the information in them is interpreted using the same procedures that are used to interpret information in tables.

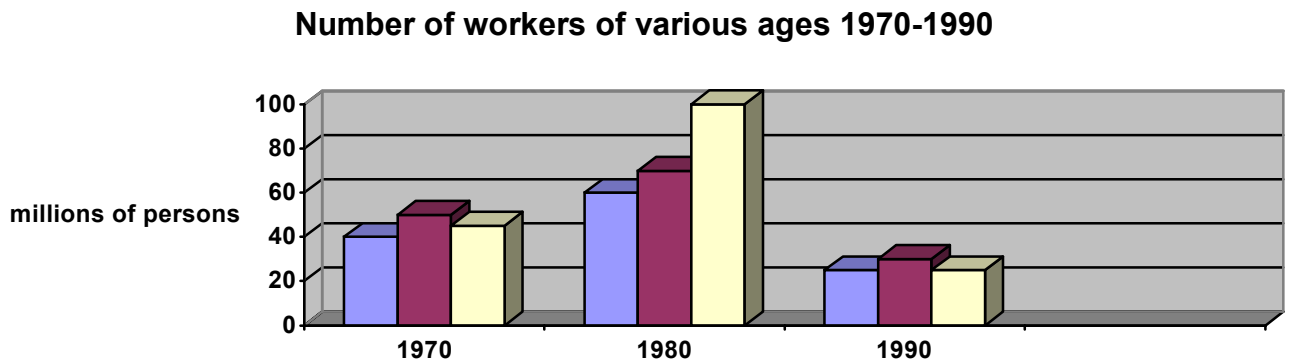
Circle graphs are used to show the sizes of the parts that make up a whole. The circle graph below illustrates the proportions of total advertising expenditures that go to television, newspapers, magazines, and other media. Study the graph to understand the method it uses to show that newspapers receive the largest share of advertising dollars, and that three times more is spent on television advertising than on radio advertising.



Advertising expenditures by media

{Data from Statistical Abstract of the United States. 104th ed. 1984. p. 567}

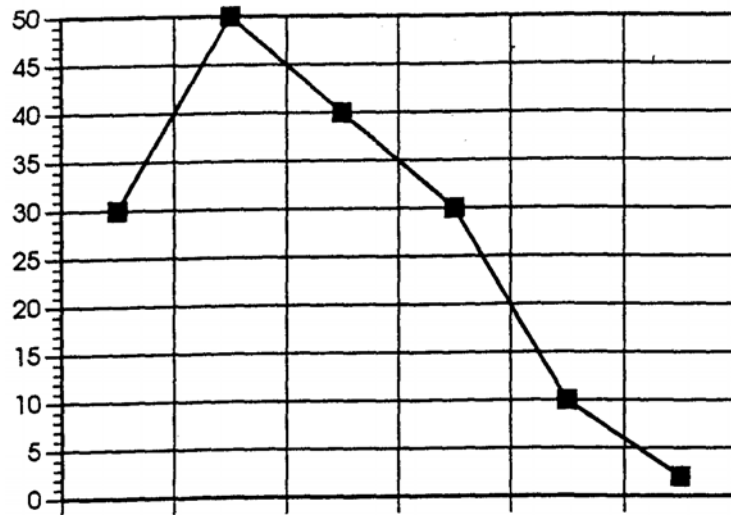
Bar Graphs are usually used to show differences in amounts. The bar graph below shows the differences in numbers of workers of various ages for the years 1970 to 1990. Study the labels and the bars in the graph to understand that during the twenty-year period beginning in 1970, there was a great increase in workers in the 25 to 54 year-old group, but there was only a slight increase in younger workers and a decrease in older workers.



Interpret this data: Blue= 18-25 yr old Red=25-54 yr old Yellow=55 plus

- How many workers in the 18-15 yr old group were there in 1970? 1980?
- What was the increase in older workers from 1970 to 1980?
- Which of the three age groups decreased most during the years shown?

Line graphs often show the increase or decrease of an element over time:



Nov Dec Jan Feb Mar Apr

• Sales of Winter Boots (In Thousands)

Interpret the data:

- What was the highest month for sales of winter boots?
- What was the lowest month for sales of winter boots?
- How many boots were sold in January?
- How many boots were sold in March?

Study Skills
Day 23

Review for final exam.

Study Skills
Day 24

Final Exam/Course Evaluation